

FIG. 1 (Prior Art)

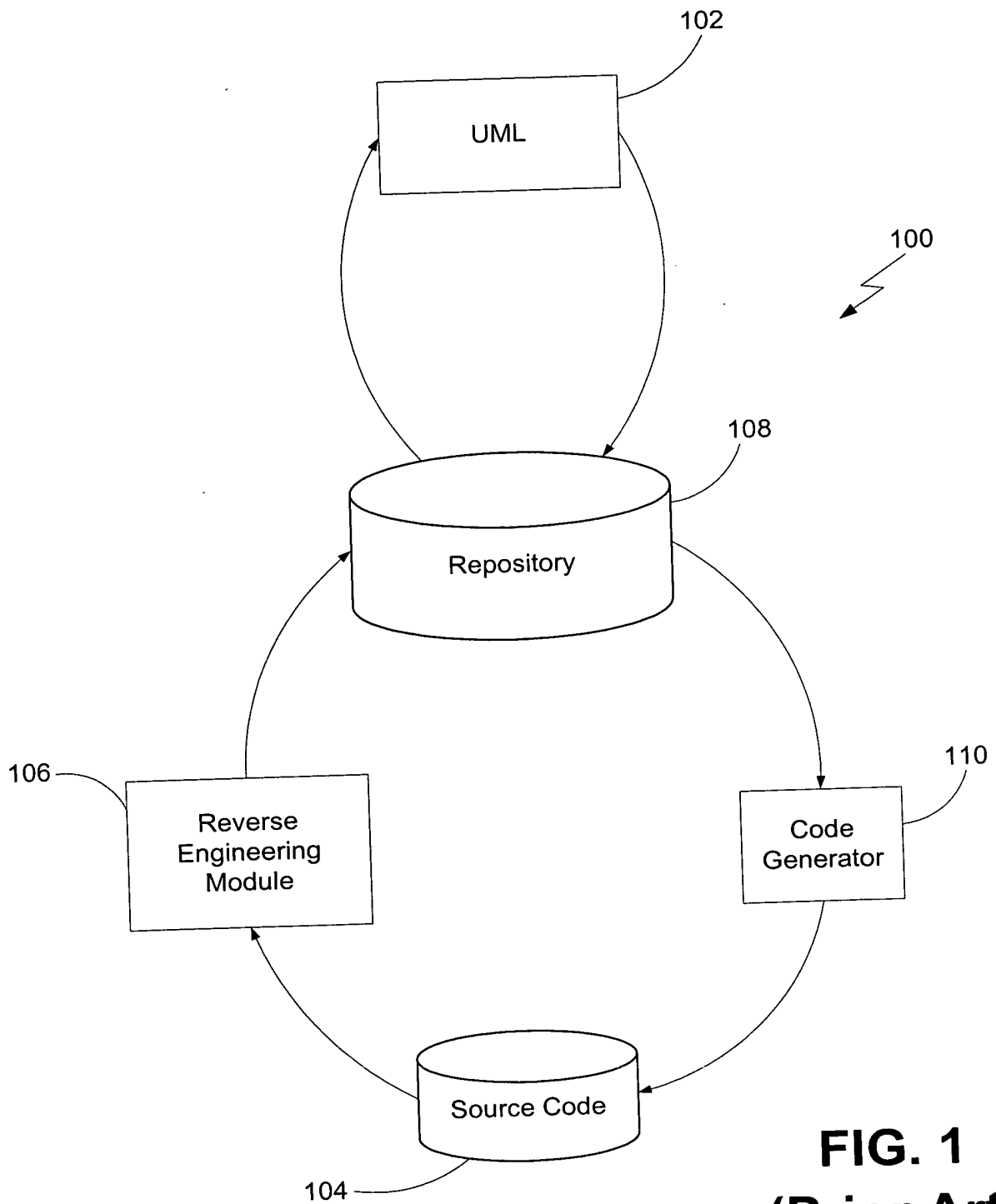


FIG. 1
(Prior Art)

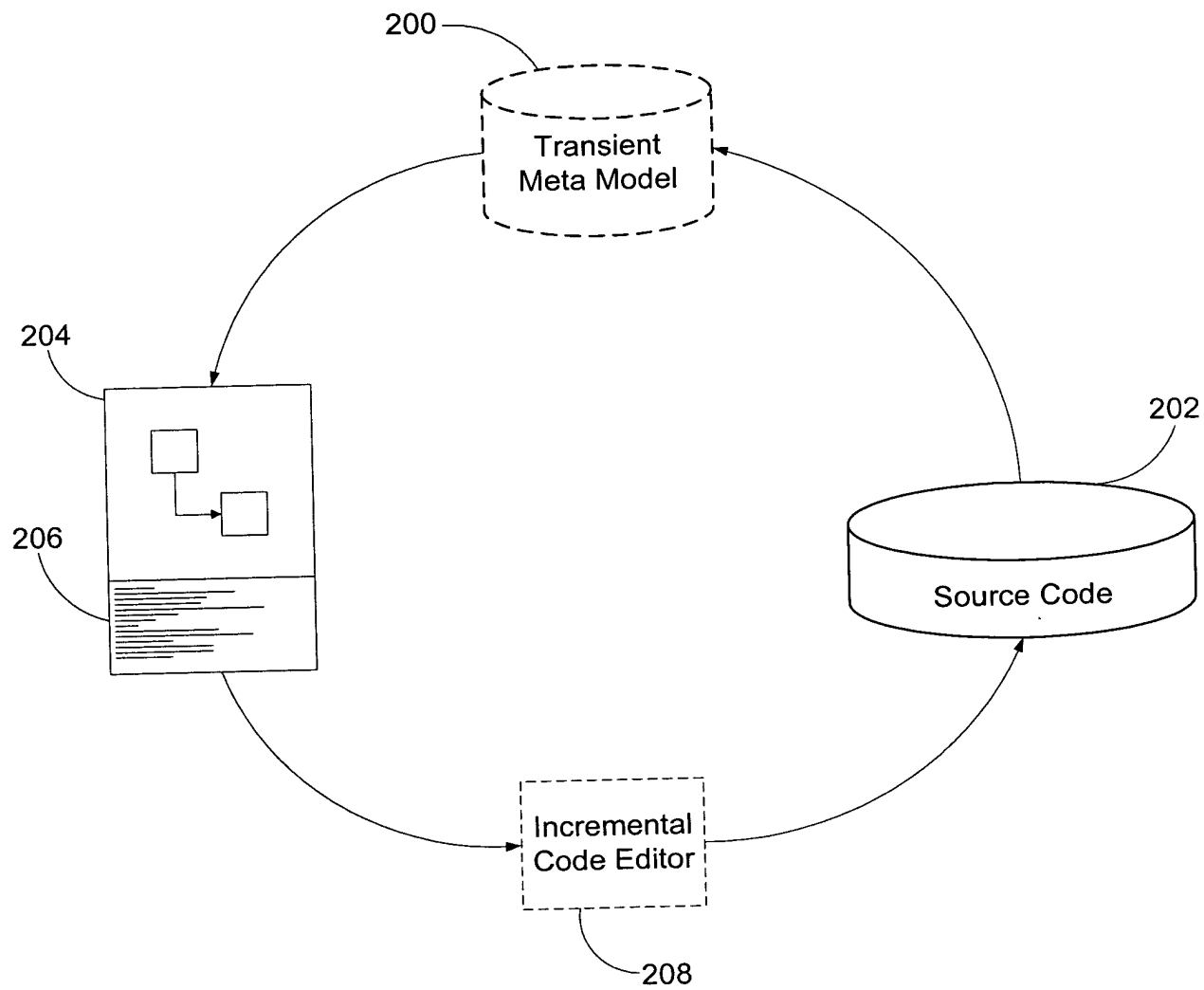


FIG. 2

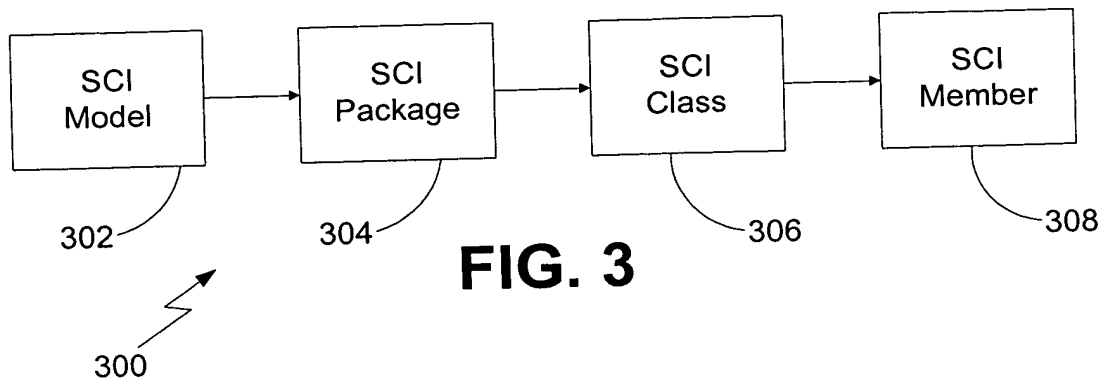


FIG. 3

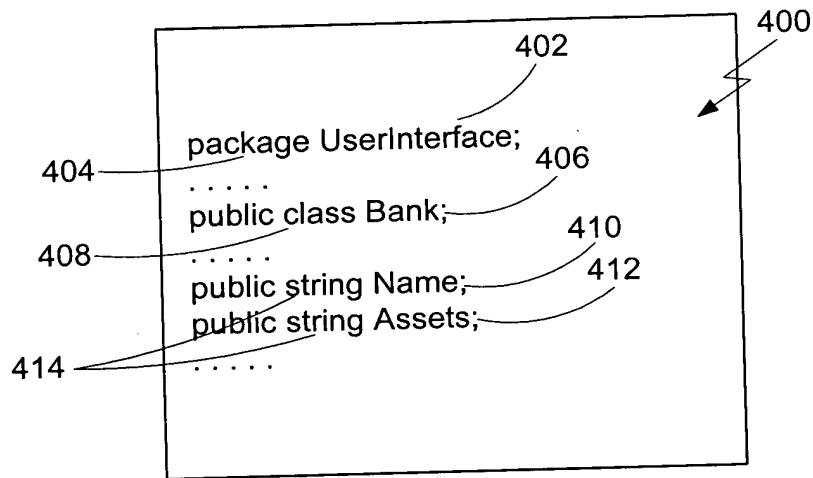


FIG. 4

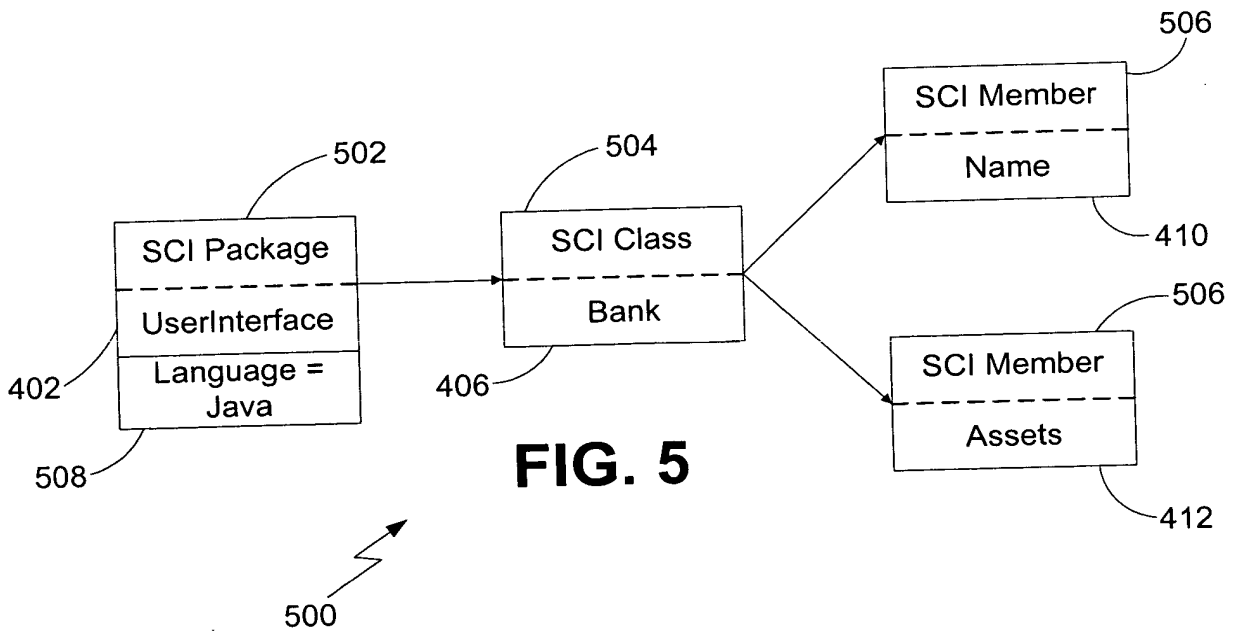


FIG. 5

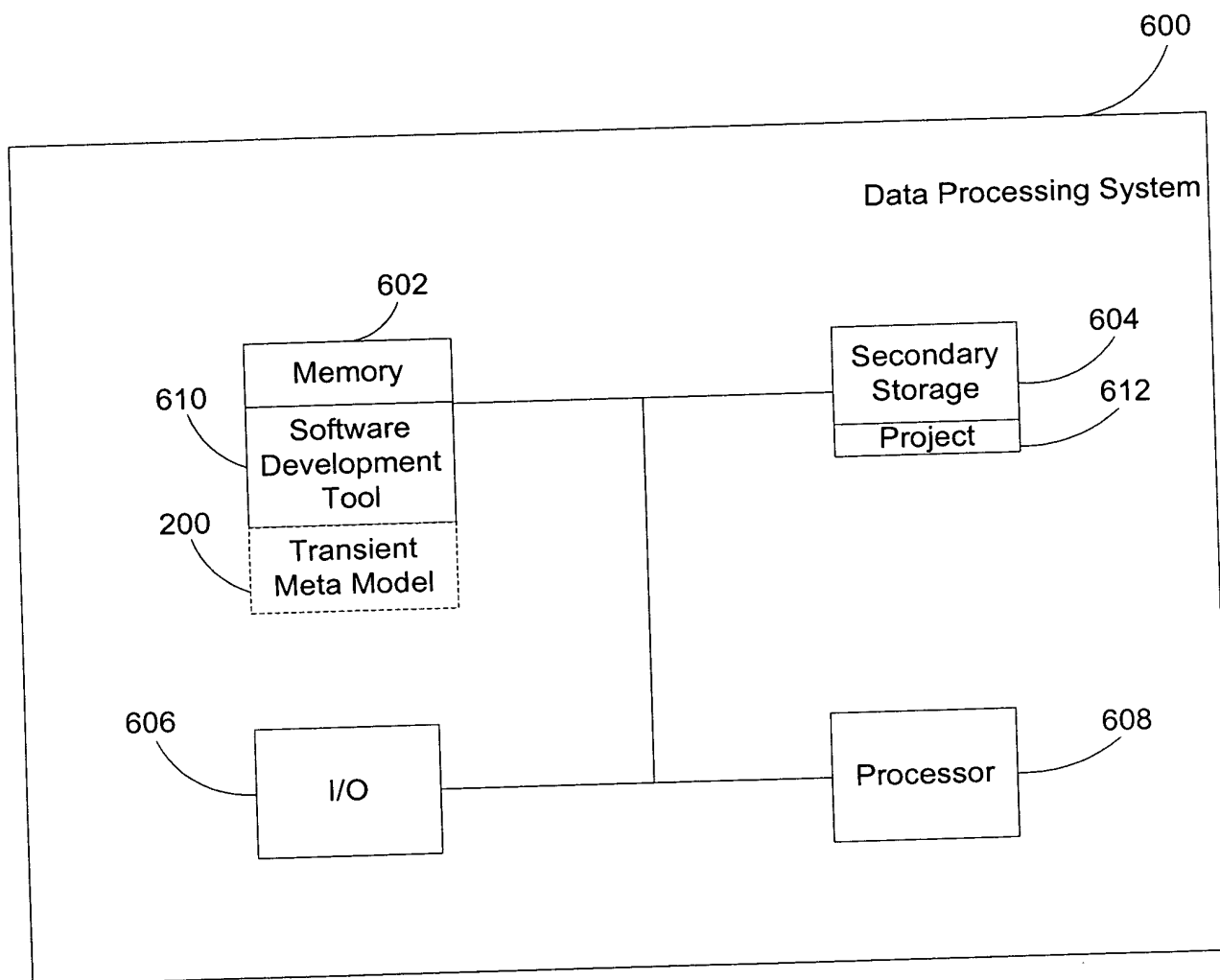


FIG. 6

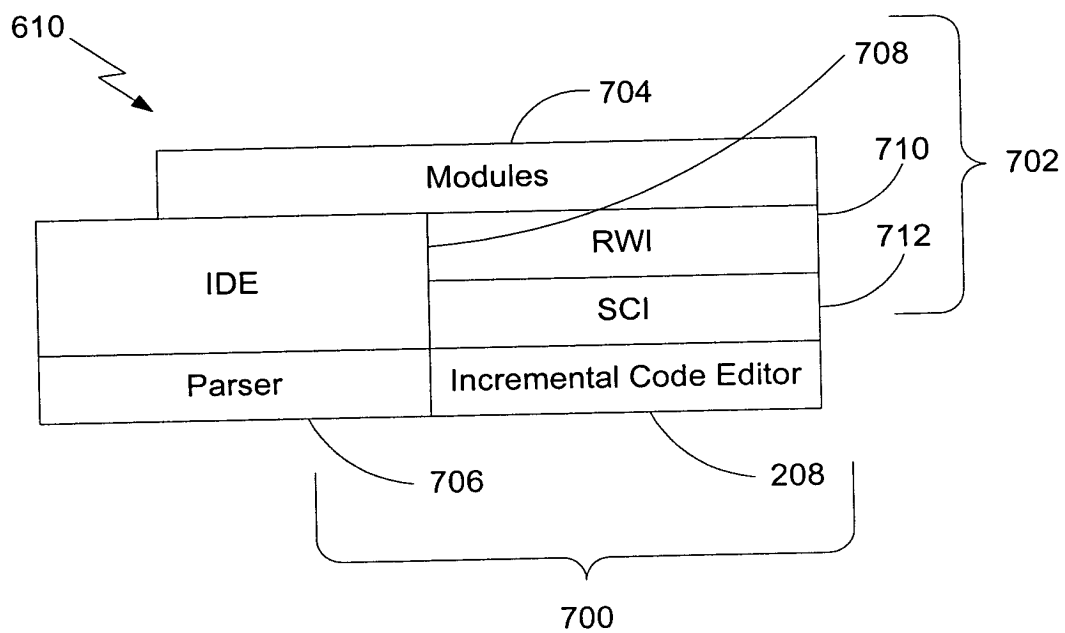


FIG. 7

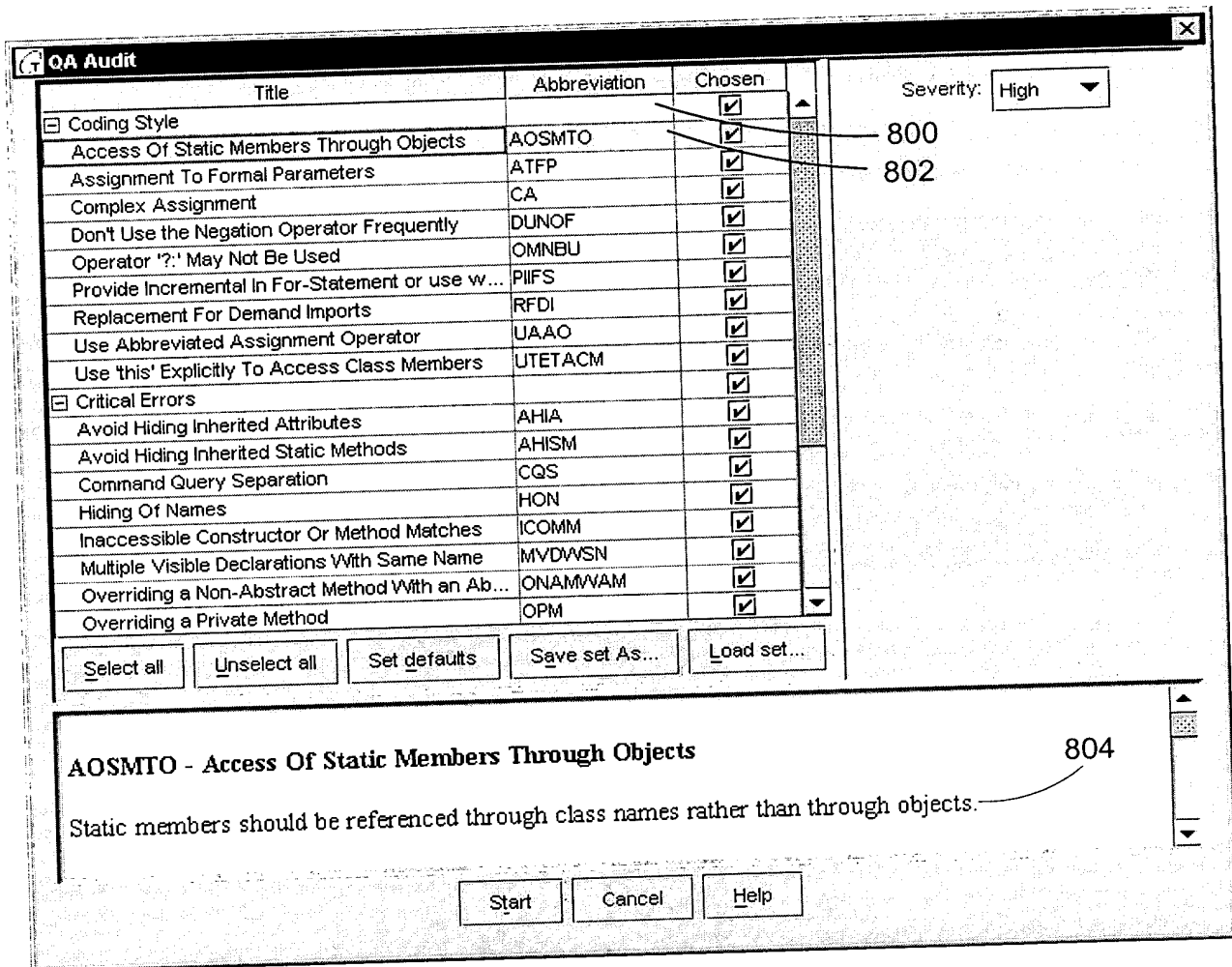


FIG. 8A

20250420 14:04:00

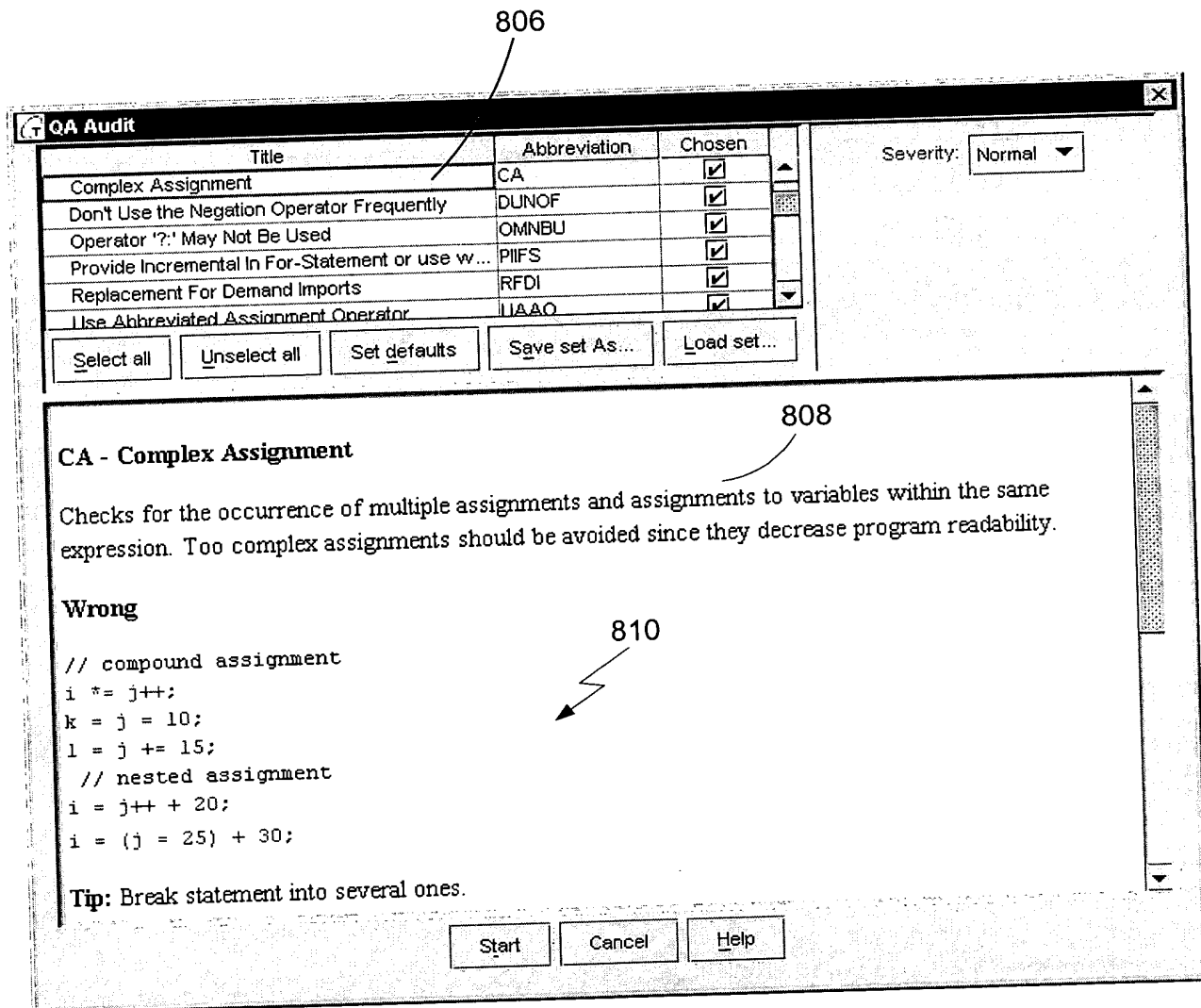


FIG. 8B

806

QA Audit

Title	Abbreviation	Chosen
Complex Assignment	CA	<input checked="" type="checkbox"/>
Don't Use the Negation Operator Frequently	DUNOF	<input checked="" type="checkbox"/>
Operator '?' May Not Be Used	OMNBU	<input checked="" type="checkbox"/>
Provide Incremental In For-Statement or use w...	PIIFS	<input checked="" type="checkbox"/>

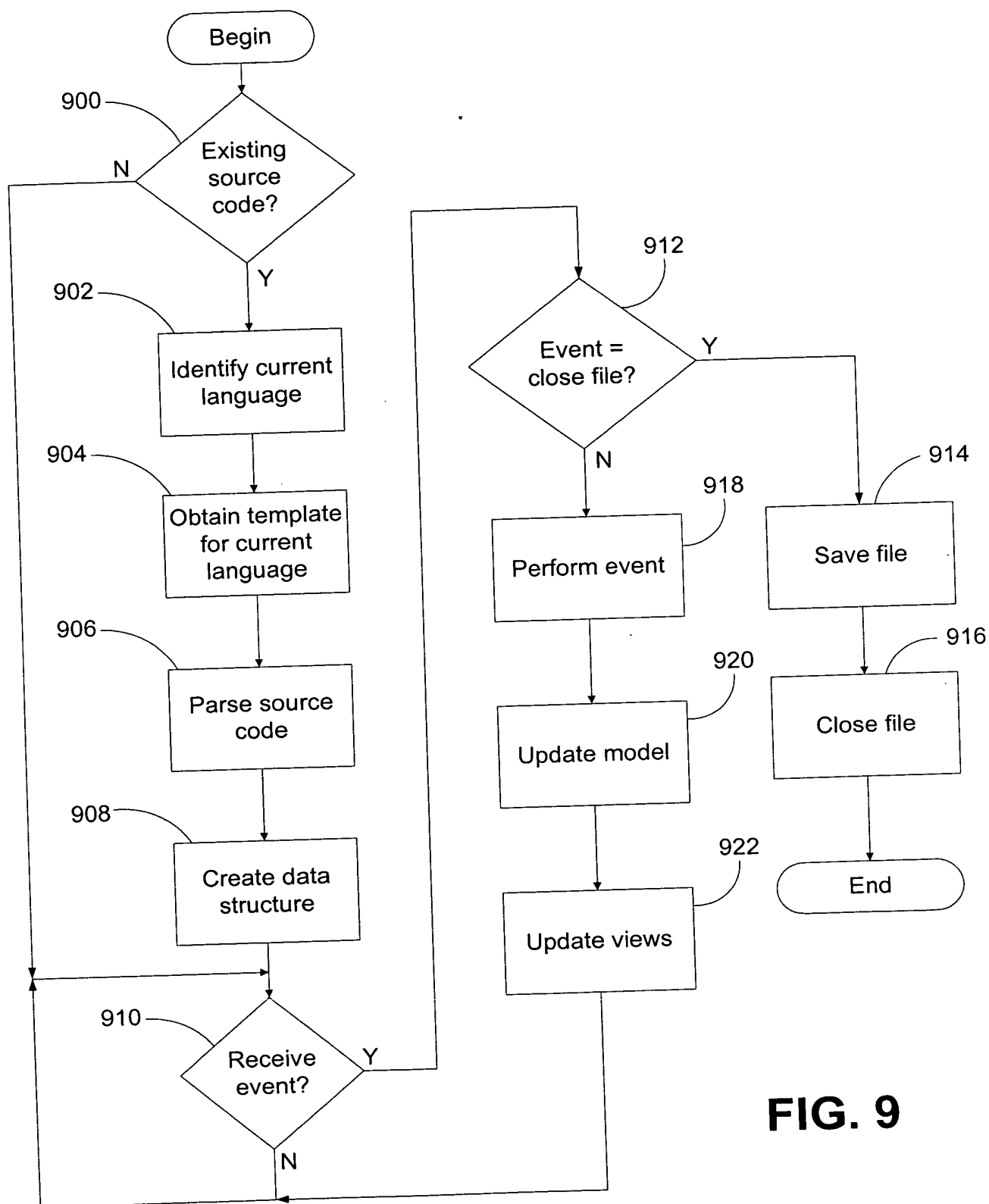
Severity: Normal ▼

Tip: Break statement into several ones.

Right

```
// instead of i *= j++;
j++;
i *= j
// instead of k = j = 10;
k = 10;
j = 10;
// instead of l = j += 15;
j += 15;
l = j;
// instead of i = j++ + 20;
j++;
i = j + 20;
// instead of i = (j = 25) + 30;
j = 25;
i = j + 30;
```

FIG. 8C



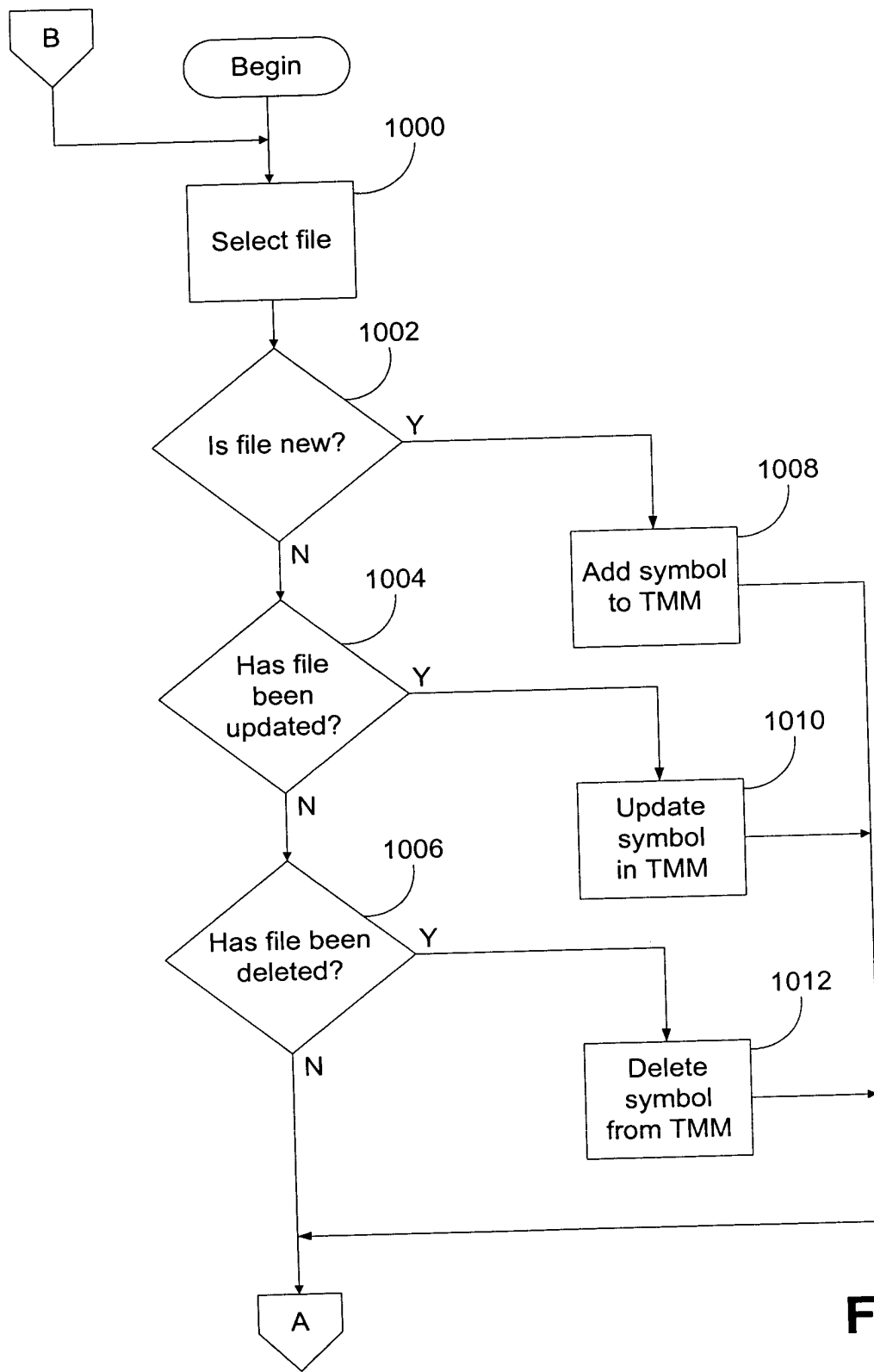


FIG. 10A

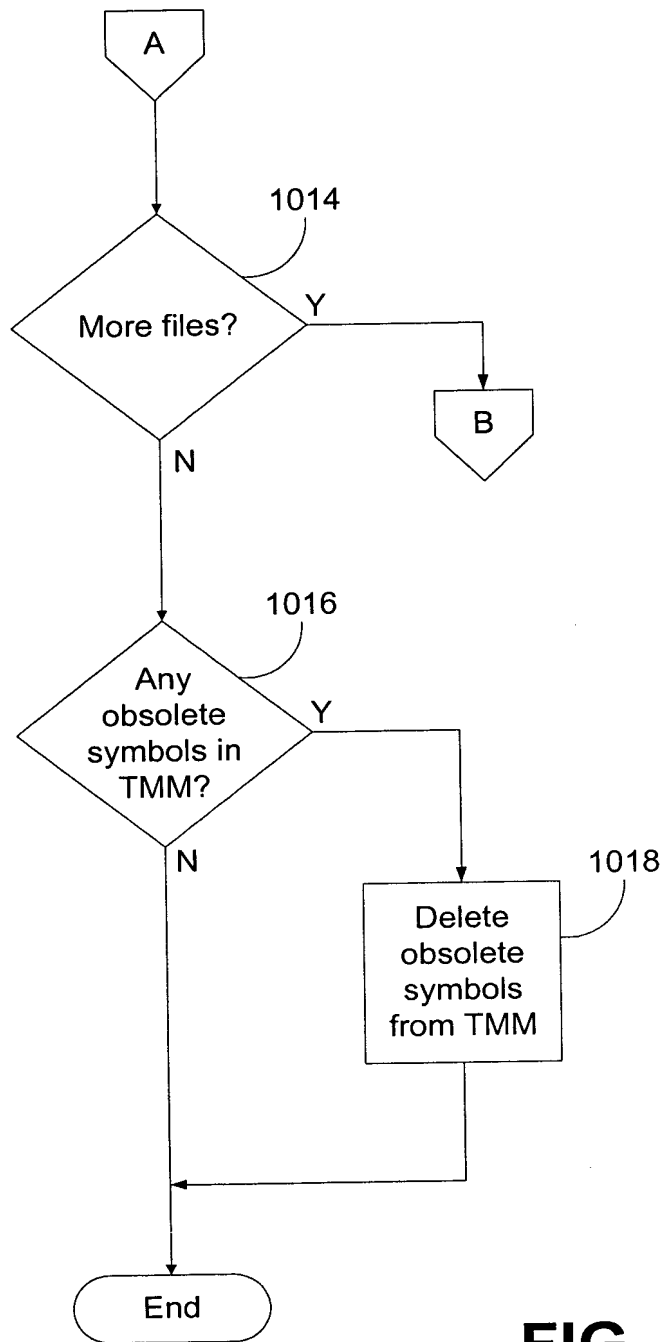


FIG. 10B

FIG. 11

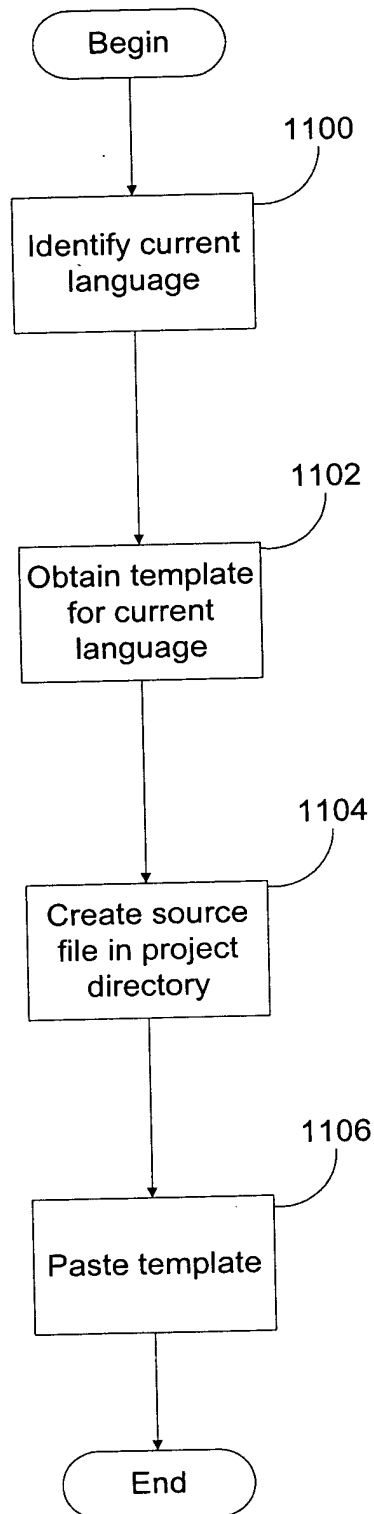


FIG. 11

FIG. 12

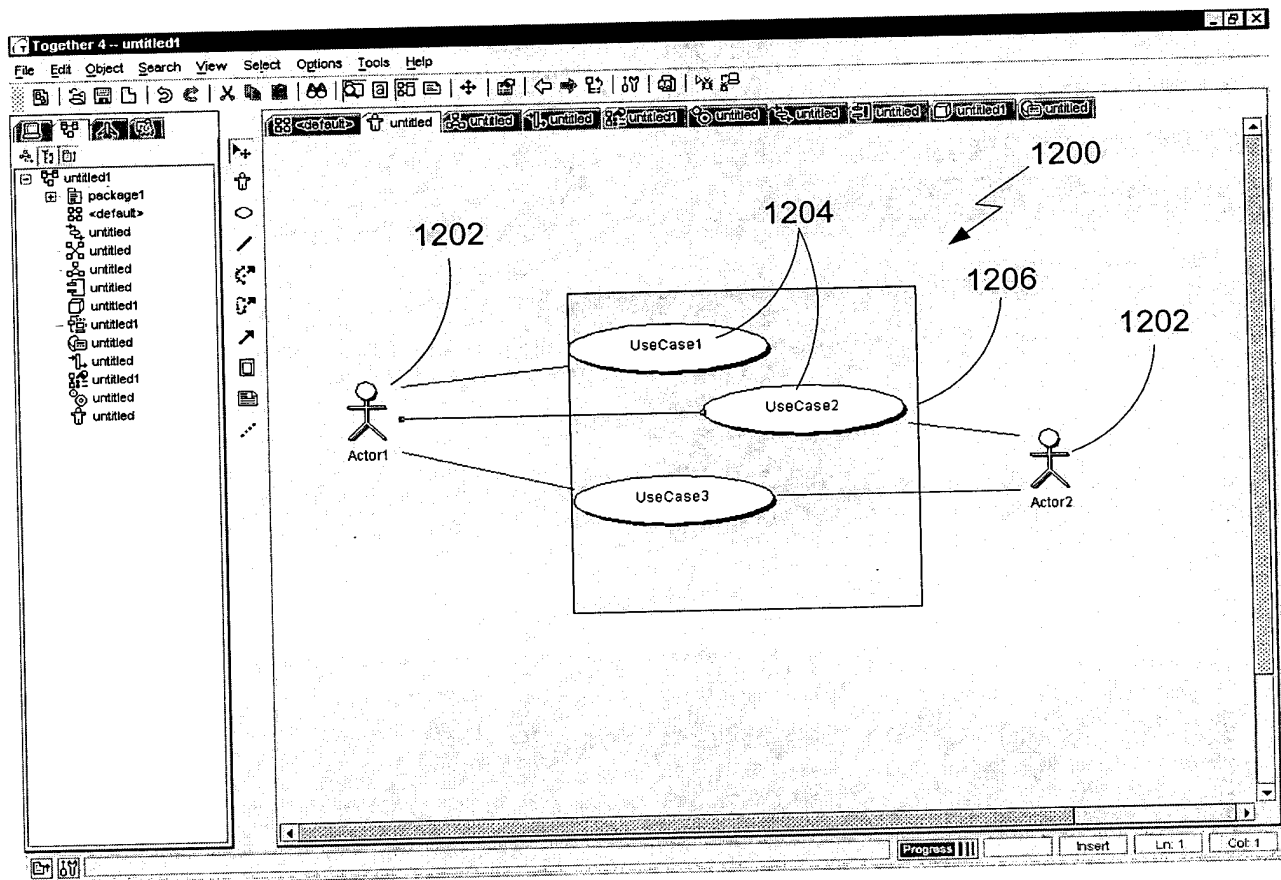


FIG. 12

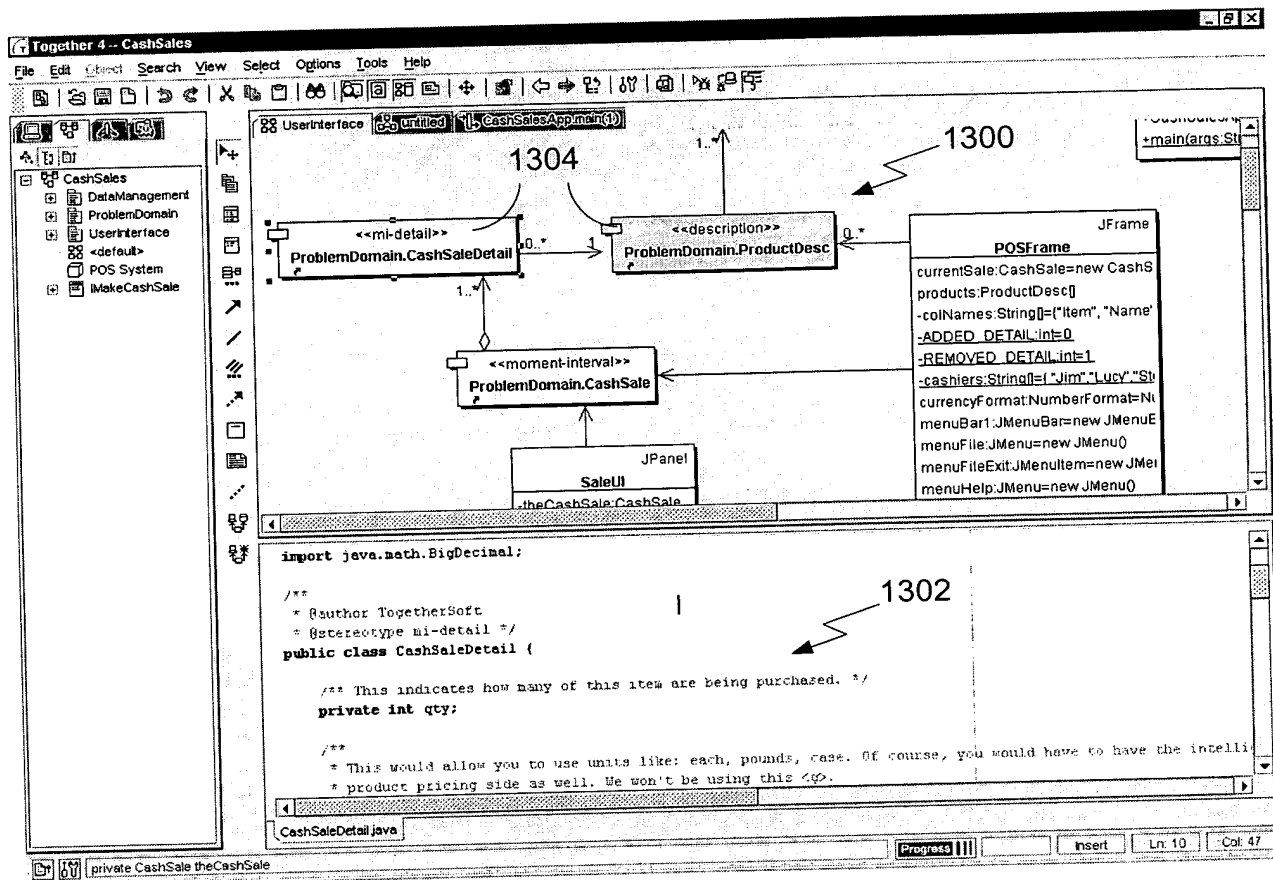


FIG. 13

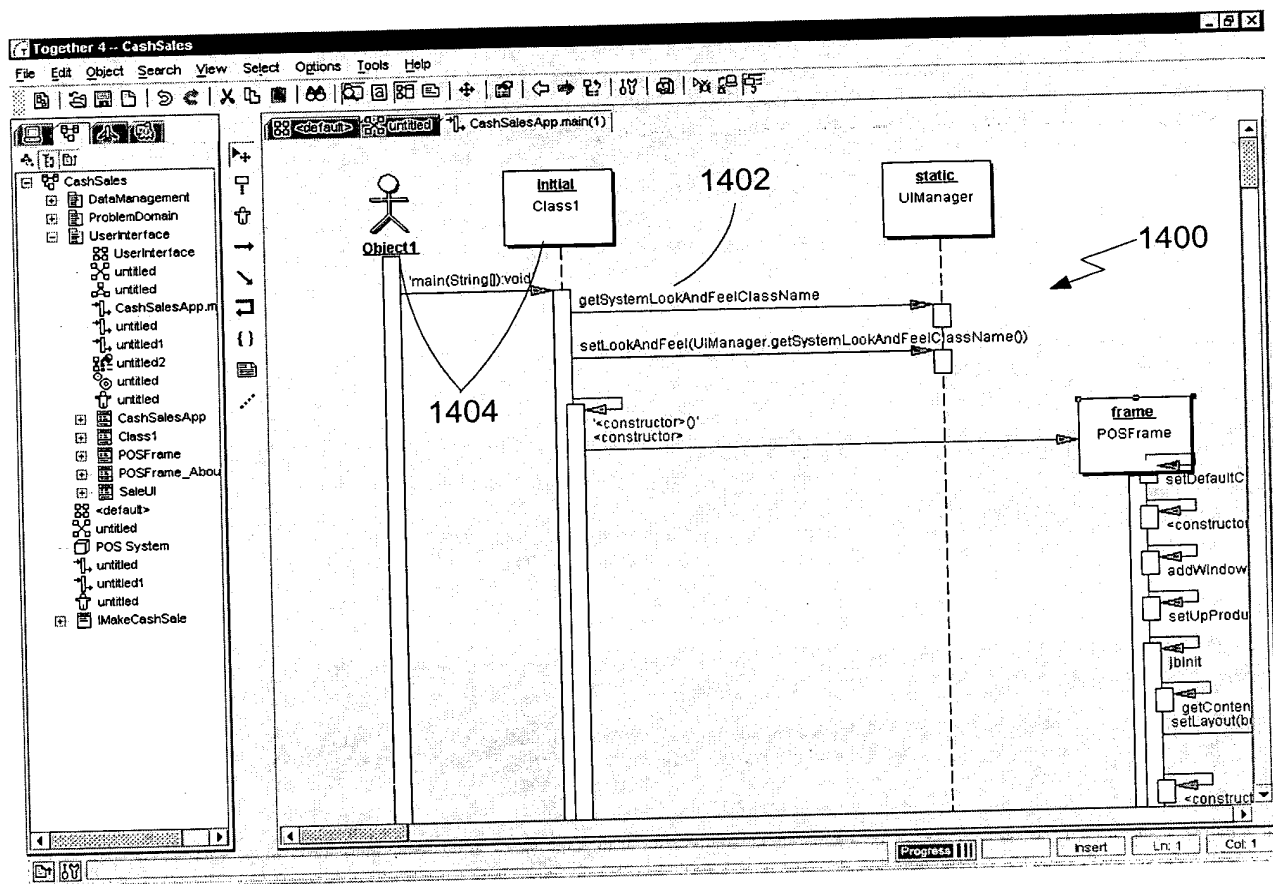


FIG. 14

FIG. 15

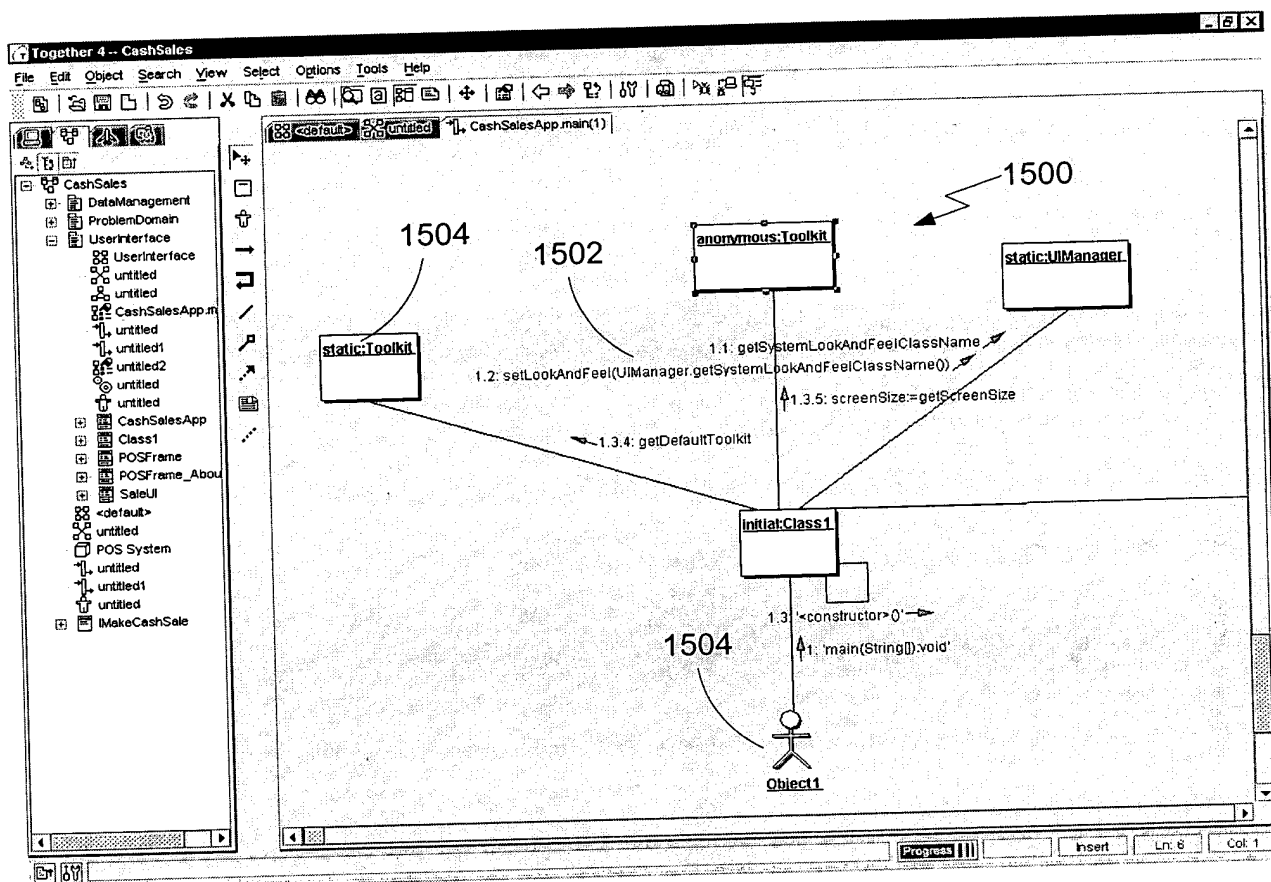


FIG. 15

FIG. 16

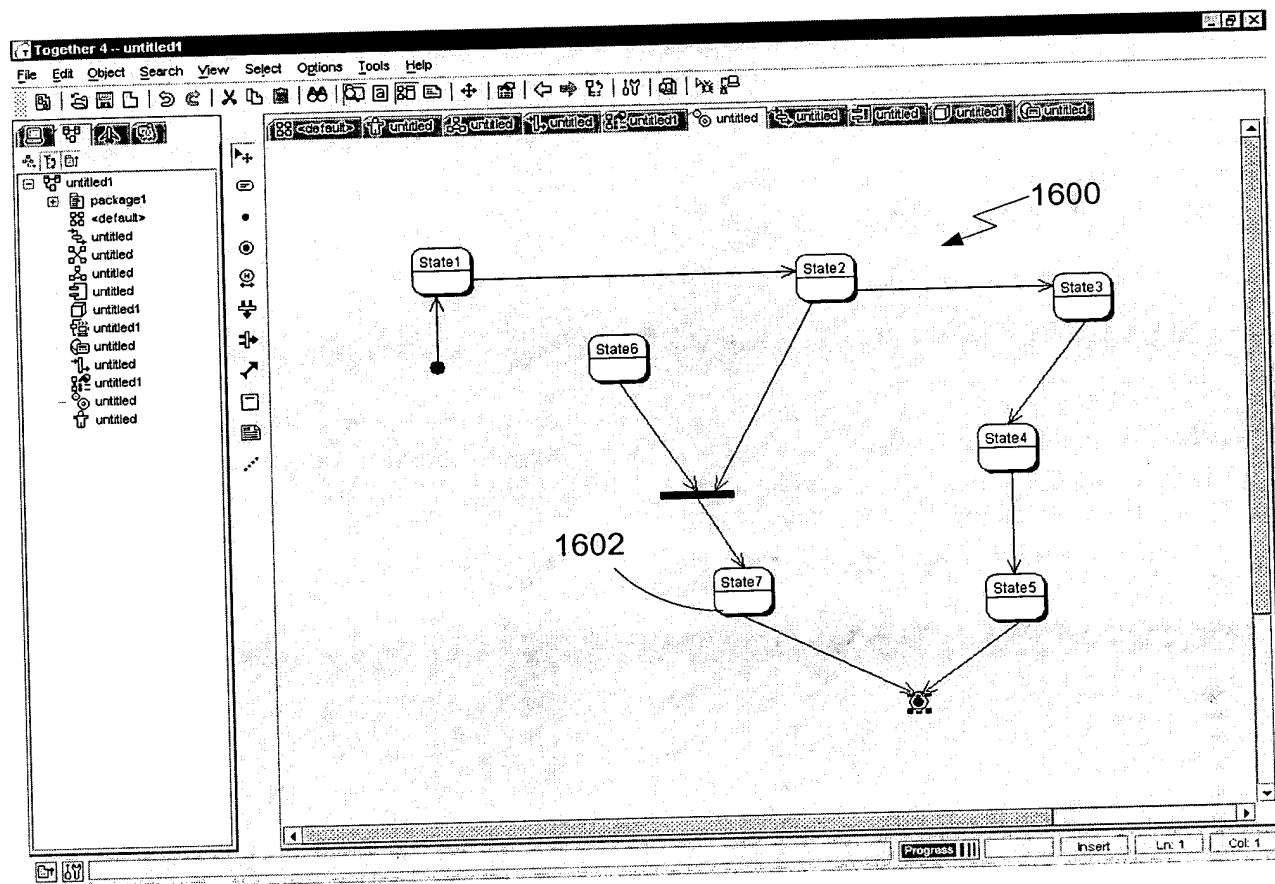


FIG. 16

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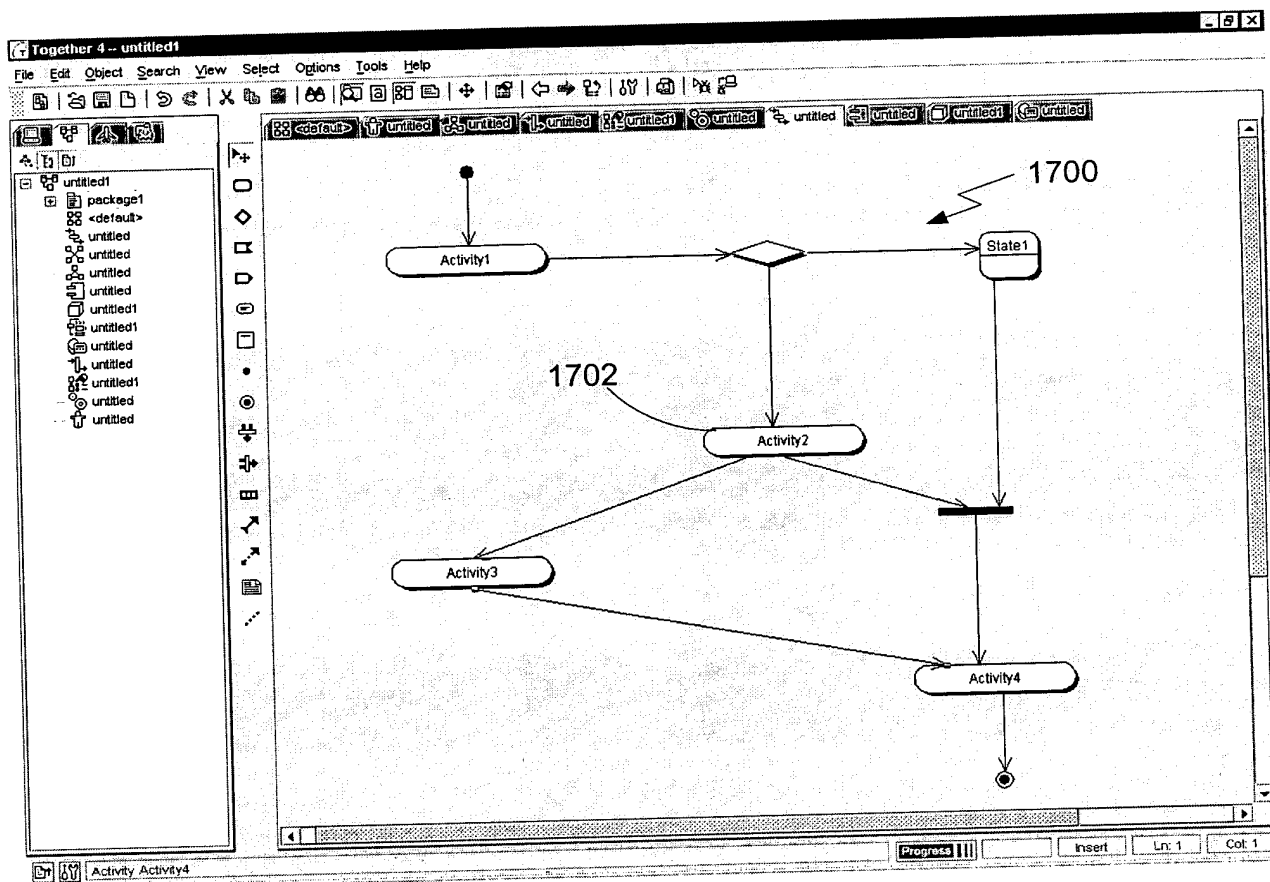


FIG. 17

FIG. 18

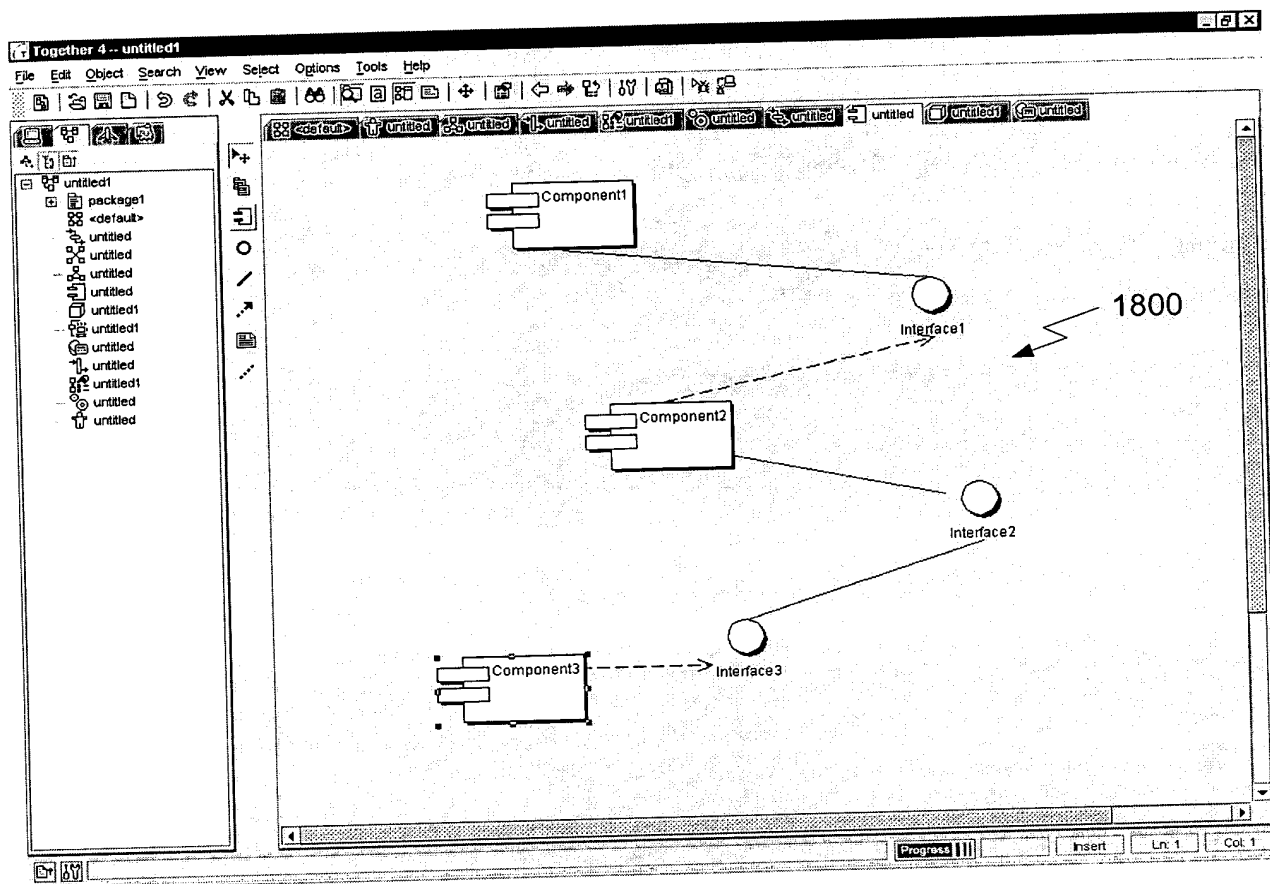


FIG. 18

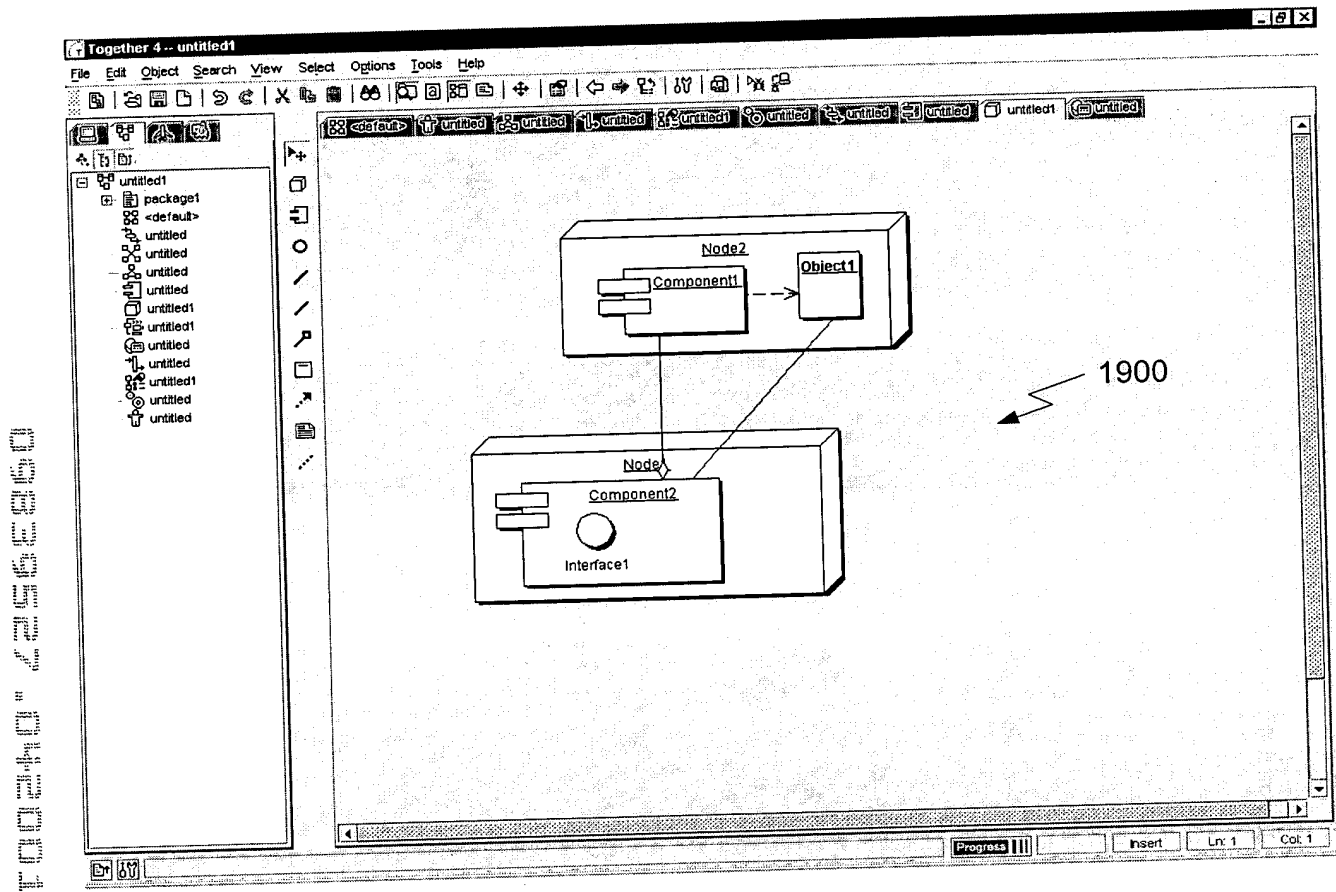


FIG. 19

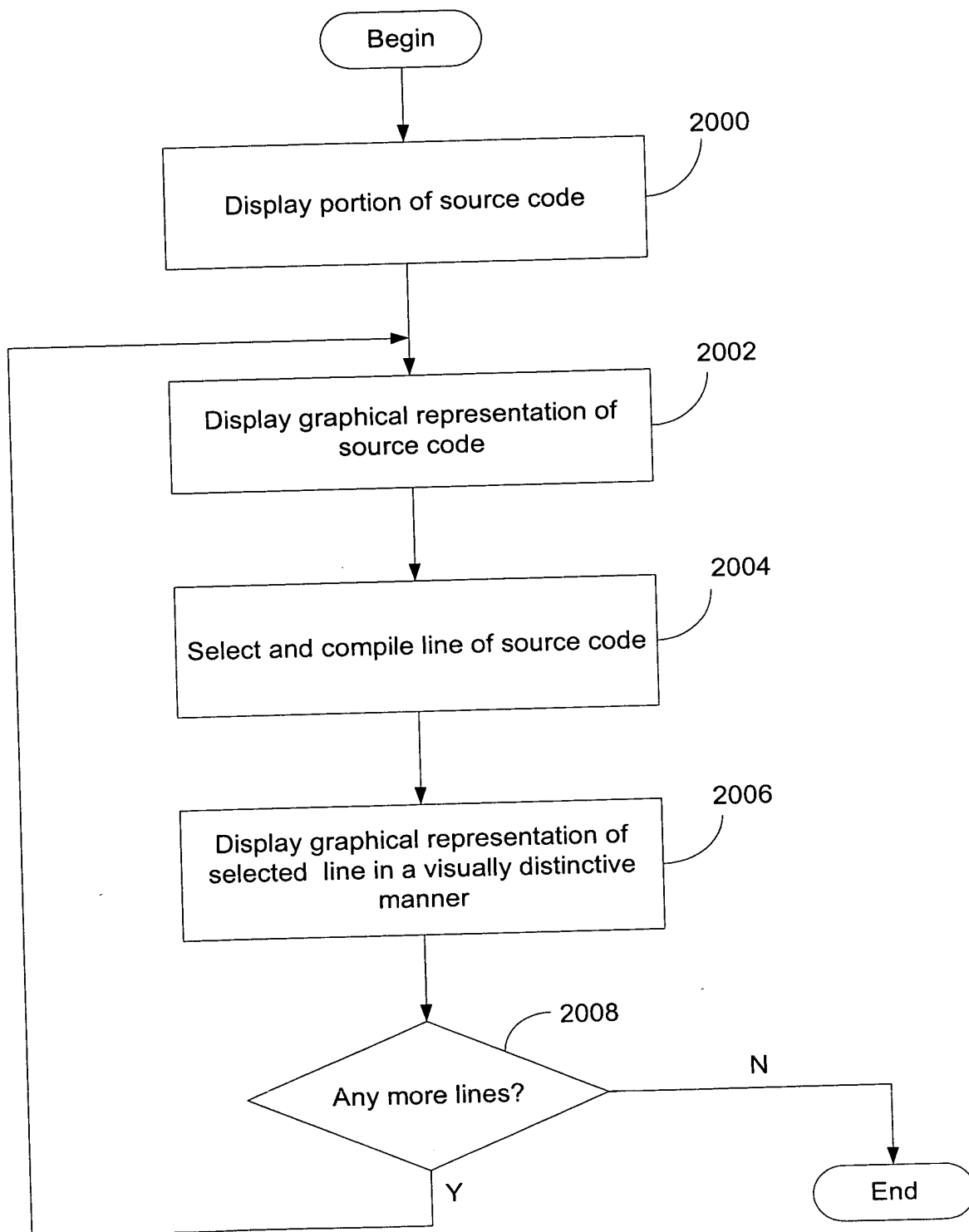
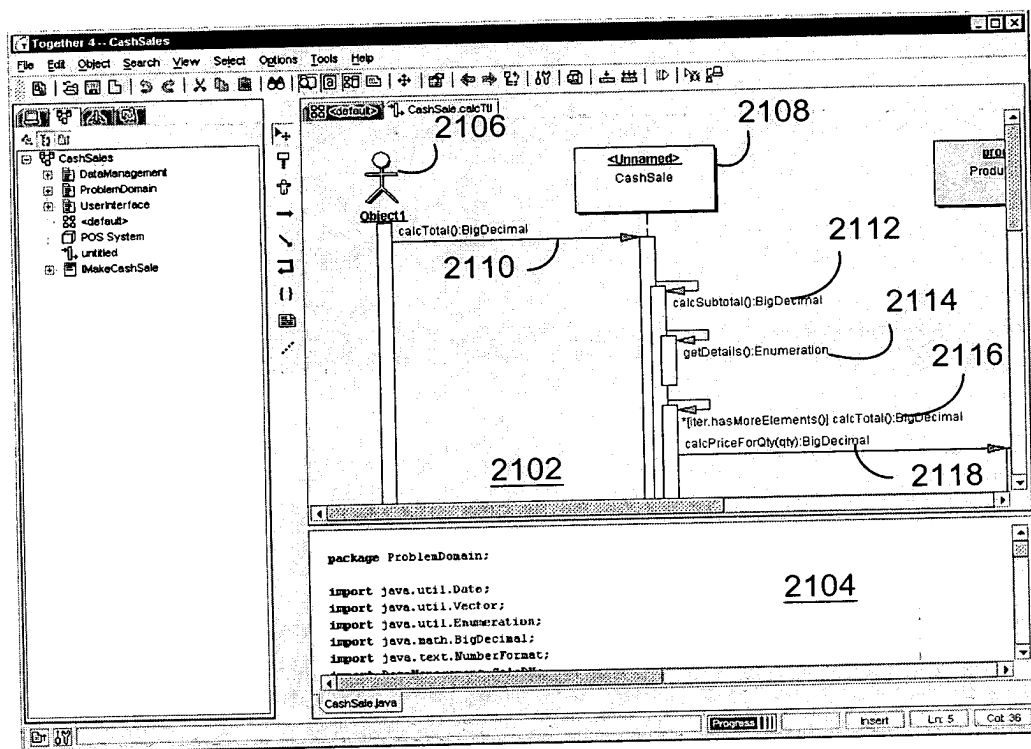


FIG. 20

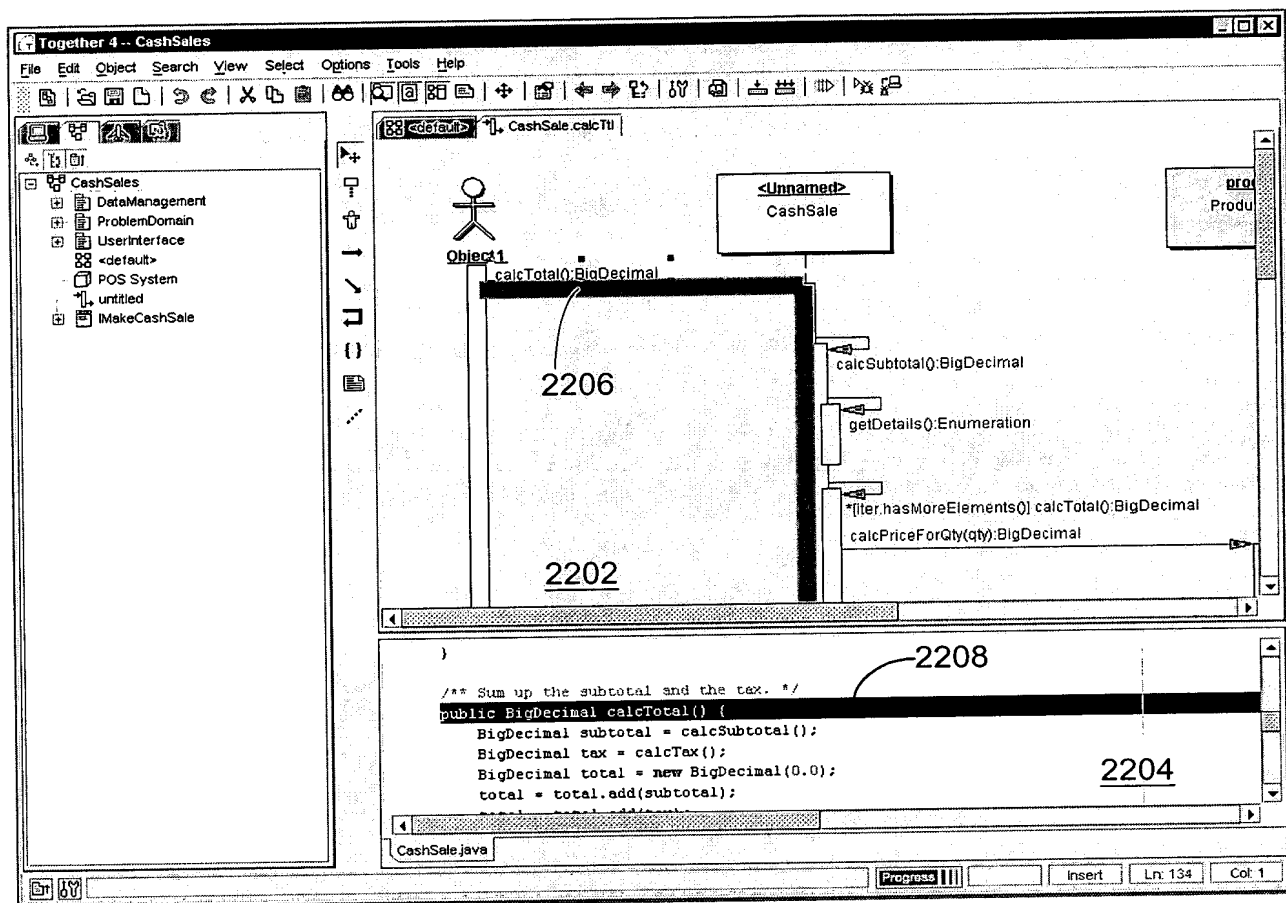
FIG. 21



2100

FIG. 21

FIG. 22



2200

FIG. 22

The screenshot shows the Together 4 IDE with the title bar "Together 4 -- CashSales". The menu bar includes "File", "Edit", "Object", "Search", "View", "Select", "Options", "Tools", and "Help". The toolbar contains various icons for file operations and development tools.

The left sidebar shows a project tree with the following structure:

- CashSales
 - DataManagement
 - ProblemDomain
 - UserInterface
 - <default>
 - POS System
 - untitled
 - MakeCashSale

The main workspace displays a UML diagram for the "CashSale" class. The diagram includes:

- A class box labeled "<Unnamed> CashSale".
- An association line from "Object1" (represented by a stick figure) to the "CashSale" class, labeled "calcTotal():BigDecimal".
- A self-association line on the "CashSale" class, labeled "calcSubtotal():BigDecimal".
- A self-association line on the "CashSale" class, labeled "getDetails():Enumeration".
- A self-association line on the "CashSale" class, labeled "*[iter.hasMoreElements()] calcTotal():BigDecimal".
- A self-association line on the "CashSale" class, labeled "calcPriceForQty(qty):BigDecimal".

The diagram is annotated with numbers 2302, 2306, and 2308. The bottom pane shows the Java code for the "CashSale" class:

```

return change;
} // END makeCashSale()

public BigDecimal calcSubtotal() {
    Enumeration iter = getDetails();
    CashSaleDetail detail = null;
    BigDecimal subtotal = new BigDecimal(0.0);
    while (iter.hasMoreElements()) {

```

The code is annotated with numbers 2304 and 2308. The status bar at the bottom shows "CashSale.java", "Progress", "Insert", "Ln: 111", and "Col 1".

FIG. 23

2300

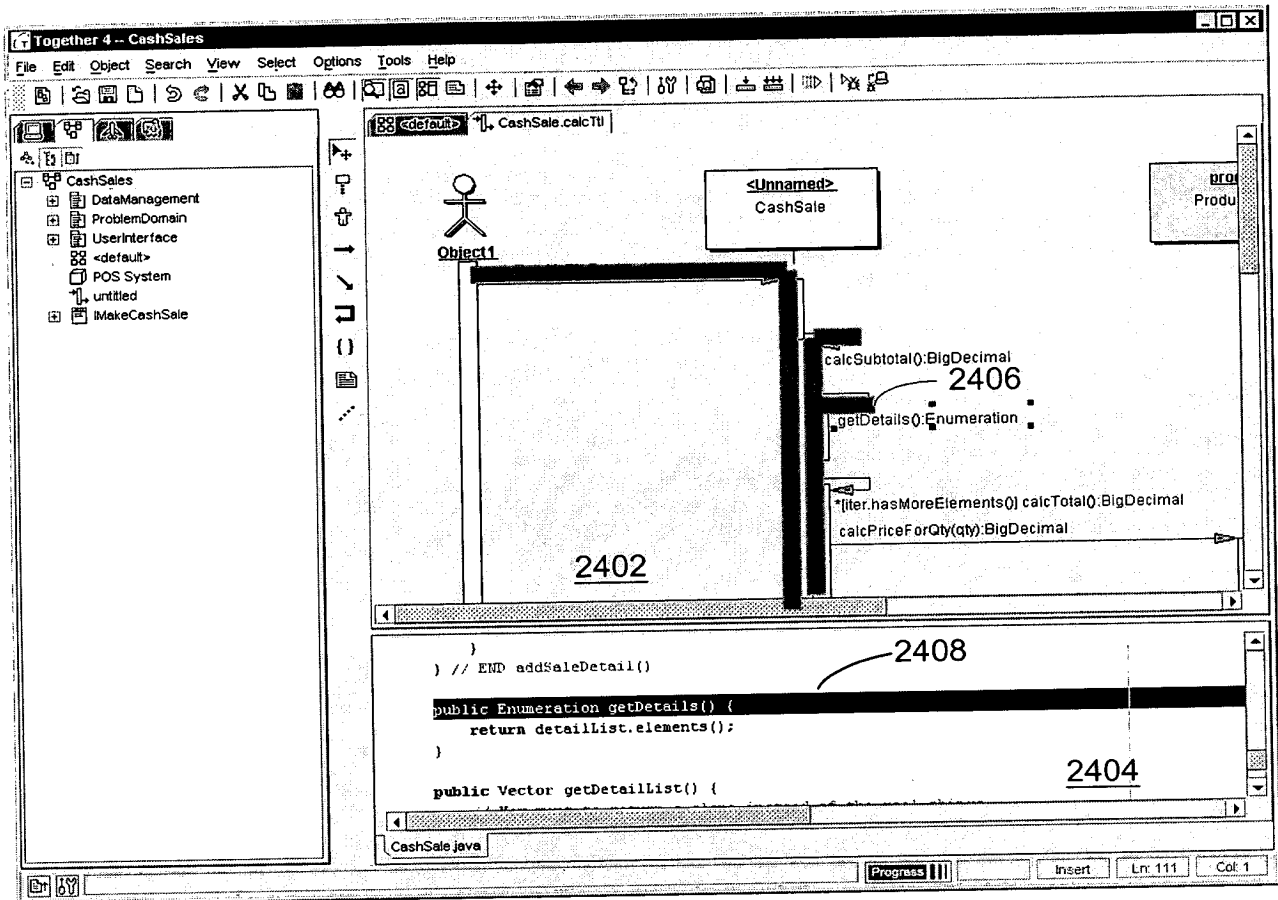
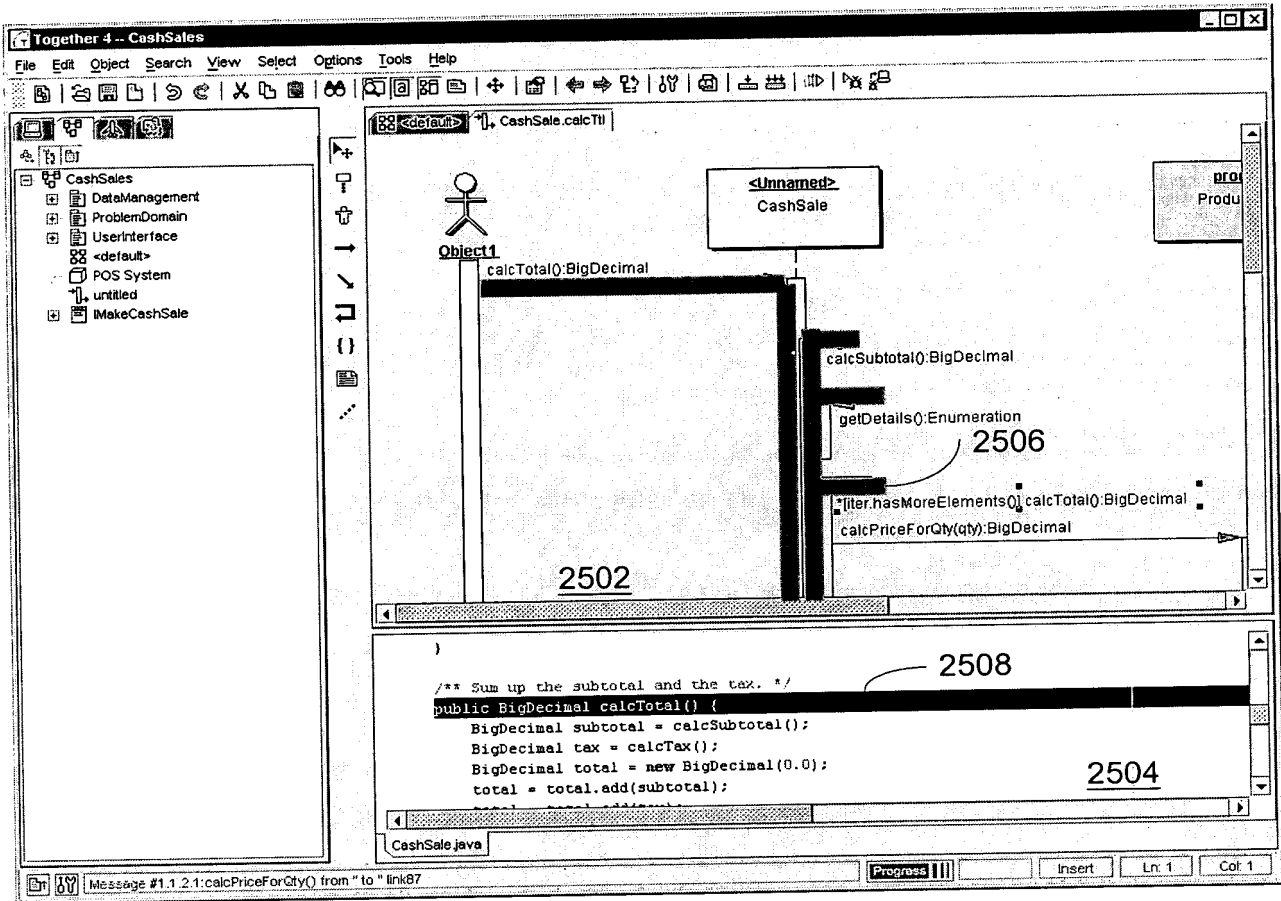


FIG. 24

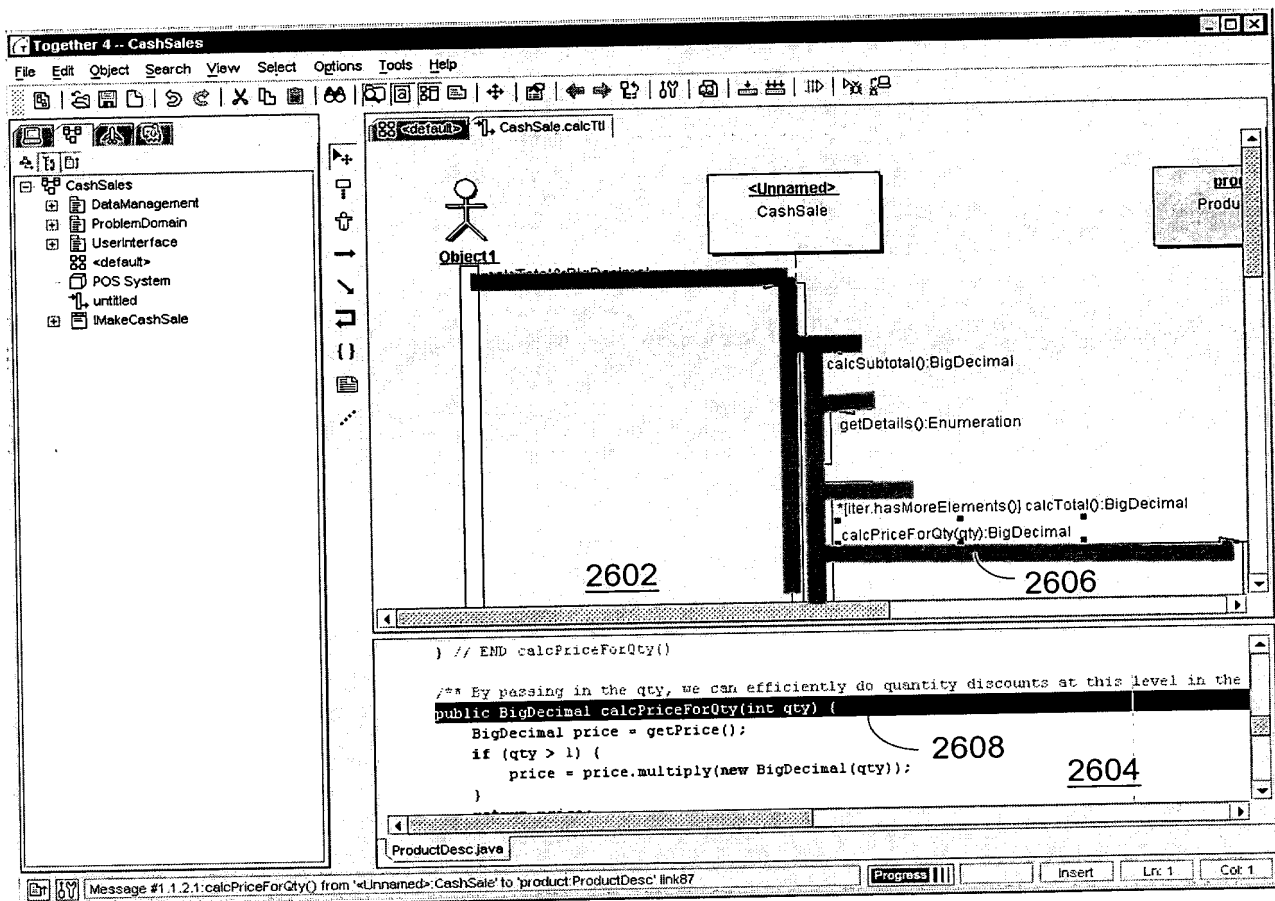
2400

FIG. 25



2500

FIG. 25



2600

FIG. 26

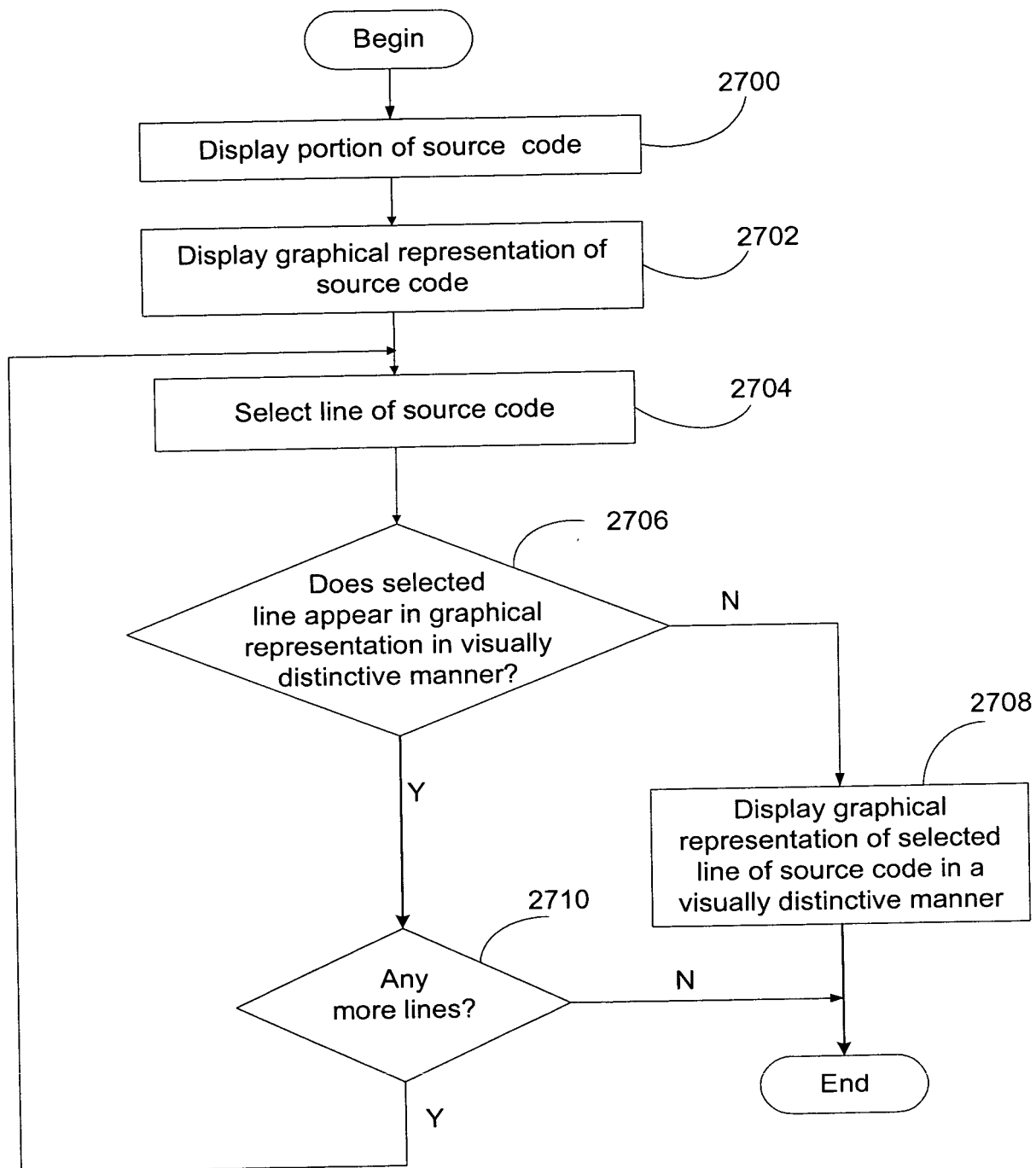


FIG. 27

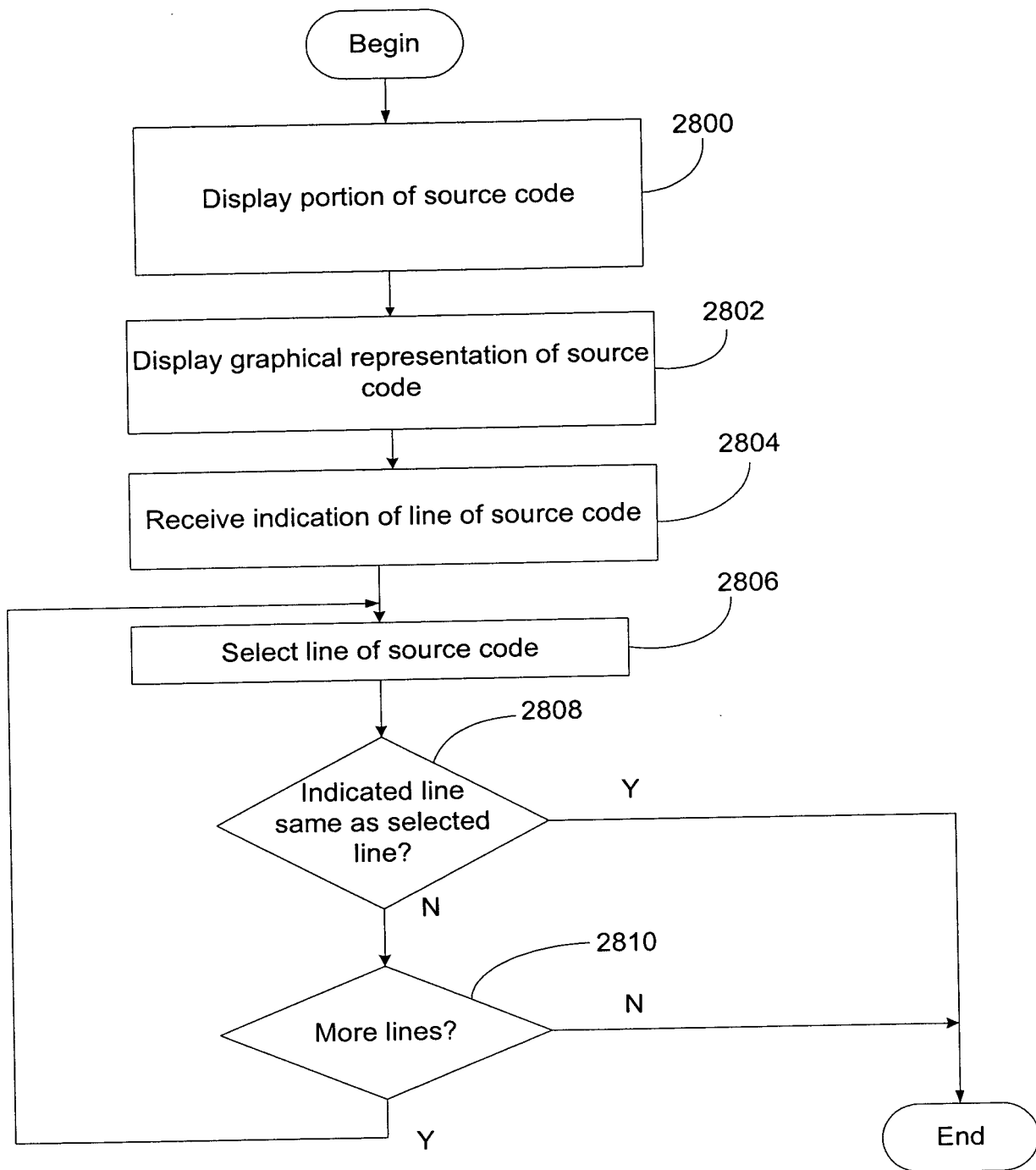


FIG. 28

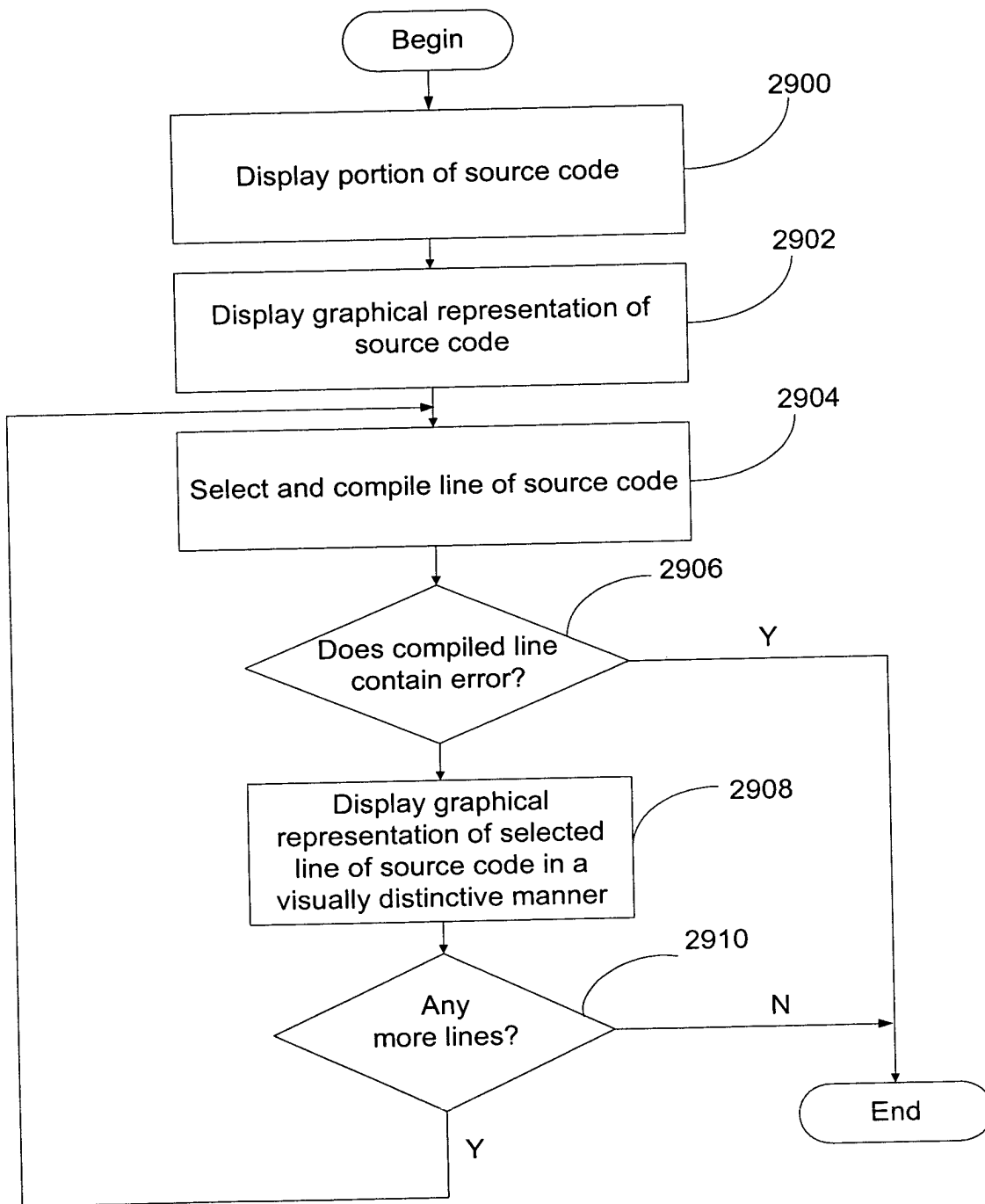


FIG. 29